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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,236	11/29/2001	David Lee Sandbach	9637-000036	8166
27572	7590	12/28/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			PATEL, NITIN	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	
			2673	
DATE MAILED: 12/28/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/980,236

**Applicant(s)**

SANDBACH ET AL.

**Examiner**

Nitin Patel

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 20-26 is/are rejected.
- 7) ☒ Claim(s) 8-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7,20-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tai (U.S. Patent no. 6,178,619) in view of Chung et al., (US 20020063690 A1).

As per claim 1, Tai shows a manually operable input apparatus (keyboard in Fig.1 element 10) for a portable electronic processing device (In Fig.2 element 25 would have connected to a portable device because keyboard is a portable input device as shown in fig.4), defining a plurality of region (input keys of keyboard In fig.1 elements 44) each representing a respective data items (input keys), the manually operable input apparatus having a plurality of sheets configured to produce a response to a mechanical interaction (In Fig. 1 elements 211,212,21,231,22,221,222); sheets are configured to be foldable into a wrapped configuration and sheets are configured to be foldable regions (In Fig.4).

Tai does not show a stand for supporting the electronic processing device.

Chung shows a stand for supporting electronic processing device (in Fig.1, 5) with a foldable key board (In section 0037). It would have been obvious to one of ordinary skill in the art, at the time of the invention was made to combined the teaching

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of Chung's with input device of Tai's because it would have provided more portability for a full function ergonomically designed for a input device.

As per claim 2, Tai shows the input device is a keyboard (In Fig.1 and 4).

As per claims 3,4 Tai does not specifically shows a processing device is a hand held computer connected to electronic processing device by a connecting means.

Chung shows a processing device (in section 0031) and connected with a connecting means with a PDA device (In Fig.1 and 5,9). It would have been obvious to one of ordinary skill in the art, at the time of the invention was made to combined the teaching of Chung's with input device of Tai's because it would have provided a firm connection with a PDA system to fold and unfold the input device with keyboard.

As per claim 5, Tai shows a connection means for supplying voltages to one or more of the sheets and to convey positional data to electronic device (In Fig.1 element 24,25 and In Col.2 lines 23-29 circuit board supply the voltages according to a input on a keyboard for a specific input character or code).

As per claim 6, Tai does not show the processing device is programmed to correlate the positional data with look up tables for converting positional data received from the interface circuit into a presentation in the form of alphanumeric text.

Chung shows processing device is programmed to correlate the positional data with look up tables for converting positional data received from the interface circuit into a presentation in the form of alphanumeric text (in section 0039 that different BIOS and ROM CMOS would have stored a look table for different strokes on a keyboard to certain designated value to shows on a display). It would have been obvious to one of

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ordinary skill in the art, at the time of the invention was made to combined the teaching of Chung's with input device of Tai's because it would have show specific character to display using keyboard.

As per claim 7, Tai shows keyboard connected during the bending processing with a device (In Fig.4).

As per claim 20, Tai show multiple layers or sheets keyboard (In Fig.1) Tai does not show the electronic processing device is permanently attached to an edge of the electronic device and configured to allow in an operable configuration, in which the input apparatus extends from the edge of the electronic processor device and wrapped in which the input apparatus us wrapped around the electronic processing device.

Chung show the electronic processing device is permanently attached to an edge of the electronic device (in Fig.1) and configured to allow in an operable configuration, in which the input apparatus extends from the edge of the electronic processor device and wrapped in which the input apparatus us wrapped around the electronic processing device (In Fig. 5,6). It would have been obvious to one of ordinary skill in the art, at the time of the invention was made to combined the teaching of Chung's with input device of tai's because it would have provided a portability as well as a cover for input device in a worst condition weather.

As per claim 21, Tai does not show input device is constructed from a fabric. It is well known in the art, that keyboard having a pad is made from a rubber and a neoprene fabric is well known in the art that used in constructing an input apparatus.

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As per claims 22,23 Tai shows keyboard membrane and facilitate the bending of the keyboard (in Fig.4 and In col.2 lines 62-67 and lines 11-20);

As per claims 24,25 Tai shows a manually operable input apparatus (keyboard in Fig.1 element 10) for a portable electronic processing device (In Fig.2 element 25 would have connected to a portable device because keyboard is a portable input device as shown in fig.4), defining a plurality of region (input keys of keyboard In fig.1 elements 44) each representing a respective data items (input keys), the manually operable input apparatus having a plurality of sheets configured to produce a response to a mechanical interaction (In Fig. 1 elements 211,212,21,231,22,221,222); sheets are configured to be foldable into a wrapped configuration and sheets are configured to be foldable regions (In Fig.4).Tai shows one membrane sheet (in Col.2 lines 15-22) and a neoprene fabric is well known in the art that used in constructing a input apparatus

Tai does not show a stand for supporting the electronic processing device.

Chung shows a stand for supporting electronic processing device (in Fig.1, 5) with a foldable key board (In section 0037). It would have been obvious to one of ordinary skill in the art, at the time of the invention was made to combined the teaching of Chung's with input device of Tai's because it would have provided more portability for a full function ergonomically designed for a input device.

As per claim 26,Tai shows a manually operable input apparatus (keyboard in Fig.1 element 10) for a portable electronic processing device (In Fig.2 element 25 would have connected to a portable device because keyboard is a portable input device as shown in fig.4), defining a plurality of region (input keys of keyboard In fig.1 elements

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44) each representing a respective data items (input keys), the manually operable input apparatus having a plurality of sheets configured to produce a response to a mechanical interaction (In Fig. 1 elements 211,212,21,231,22,221,222); sheets are configured to be foldable into a wrapped configuration and sheets are configured to be foldable regions (In Fig.4).

Tai does not show a stand for supporting the electronic processing device.

Chung shows a stand for supporting electronic processing device (in Fig.1, 5) with a foldable key board (In section 0037). It would have been obvious to one of ordinary skill in the art, at the time of the invention was made to combined the teaching of Chung's with input device of Tai's because it would have provided more portability for a full function ergonomically designed for a input device. Chung show the electronic processing device is permanently attached to an edge of the electronic device (in Fig.1) and configured to allow in an operable configuration, in which the input apparatus extends from the edge of the electronic processor device and wrapped in which the input apparatus us wrapped around the electronic processing device (In Fig. 5,6). It would have been obvious to one of ordinary skill in the art, at the time of the invention was made to combined the teaching of Chung's with input device of tai's because it would have provided a portability as well as a cover for input device in a worst condition weather.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

***Allowable Subject Matter***

4. Claims 8-19 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to teach or suggest a manually operable input apparatus with portable electronic device in combination wherein the connecting means connecting the apparatus to the electronic processing device is foldable to allow the electronic processing device and the input apparatus to be manually arranged in an operational configuration in which the electronic processing device is supported in a position spaced apart from the input apparatus and to be reconfigured into a wrapped configuration in which the electronic processing device is enveloped by the input apparatus by the step of folding the connecting means about a first axis to an intermediate position in which the electronic processing device is received on a surface of the input apparatus and bending the input apparatus about a second axis non parallel with the first axis and a third non parallel with the first axis as claimed in claim 8.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not



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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 703-308-7024.

The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H Shalwala can be reached on 703-305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NP

December 24, 2004



VIJAY SHANKAR  
PRIMARY EXAMINER